

In the Specification:

Please amend the paragraph at **page 7, lines 17 to 23**, as follows.

It is the object of the invention to arrange the heating conductor path(s) so that substantially the same temperature prevails at each location of the functional layer of the sensor. It is a further object of the invention to provide a fundamental basis with which an exact temperature determination, and connected therewith, an exact temperature regulation or closed loop control of the temperature of the functional surface, is made possible.

Please amend the paragraph at **page 8, lines 6 to 22**, as follows:

According to further advantageous embodiments of the invention the partial heating resistance decreases or diminishes in a direction toward the sensor tip. This is achieved in that the path length of the heating conductor path and therewith of the meander band varies from partial section to partial section. In this context, the path length of the heating conductor band is given if one would pull apart the meander band like a thread that is looped or tangled in itself. The width of the heating conductor path can also vary in various partial sections, alone or together with the path length. Moreover, in addition to the supply lines of the heating layer, measuring supply lines are also applied, with which the exact temperature can be obtained, so that an exact temperature regulation is

4191/WGF:ar

- 2 -

made possible. An exact temperature regulation is provided by a closed loop control. In a further advantageous embodiment, the heating resistance to be measured can be adjustingly set, so that plural sensors comprise an identical resistance/temperature characteristic curve.

Please amend the paragraph at **page 9, lines 1 to 6**, as follows.

The heated surface then comprises a minimal temperature gradient which means that the temperatures of the function layer is substantially constant. The temperature measurement provides more exact results and the entire high-temperature gas sensor works with a higher accuracy. Also, thereby the sensors may be normed or normalized among one another, so that the same temperature can be allocated for the same measured heating resistance of various sensors.

Please enter a new paragraph at **page 18, following line 20**, as follows.

Figs. 5a and 6 to 10 show that the heater paths 6A and 6B which are connected in series by the intermediate heater section 6C, form each two groups of heater sections with meandering amplitudes that diminish toward the tip 10 of the sensor. More specifically, the amplitudes of the first group diminish toward the second group of amplitudes which start with a larger amplitude and then also diminish toward the tip.

4191/WGF:ar

- 3 -